Productive Questions

Attention-Focusing Questions cause students to pay attention to significant details. *Have you seen . . . ? What have you noticed about . . . ? What are they doing? How does it feel/smell/look?*	**Measuring and Counting Questions** help students become more precise about their observations. How many . . . ? How often . . .? How long . . . ? How much. . . ?
Comparison Questions require students to analyze and classify. *How are these the same or different? How do they go together?*	**Action Questions** encourage students to explore the properties of unfamiliar materials, living or nonliving, and of small events taking place or to make predictions about phenomena**.** *What happens if. . . ? What would happen if. . . ? What if . . . ?*
Problem-Posing Questions allow students to plan and implement solutions to problems. *Can you find a way to . . . ? Can you figure out how to . . . ?*	**Reasoning Questions** help students think about experiences and construct ideas that make sense to them. *Why do you think . . . ? What is your reason . . . ? Can you invent a rule for . . . ?*
***Metacognitive Questions** encourage students to think about their own thinking. *What have you discovered? How do you know? What do you wonder? What will you do next? How do you decide what to do next? How do you decide what to record? How do you know when to stop? Do you every give up your idea/question/explanation? When? Why? What makes your reverse your explanation?*	

Martens, M. L. (1999, May). Productive Questions: Tools for Supporting Constructivist Learning. *Science & Children.* P. 26.
* http://www.exploratorium.edu/ifi/